Water affected	Parameter	Type (std or criteria)	Rule	Water Quality Std (in rule)	Site Specific Standard	Public Notice	Preliminary proposal sent to EPA	Final proposal sent to EPA	Date adopted / EPA approved	Comments	Requirements	Permit # (if applicable)	Facility name	Receiving water	HUC8 - Major Watershed	Basin	IWM Year	Justification	In db	
Crow River, South Fork at Hutchinson WWTP outfall T.116, R29W, s.7 NE1/4 (located on 07010205-510)	Copper	Std	7050.0222 subp.4	23.2 ug/L based on a hardness of 400 mg/L	Less than or equal to 67.3 ug/L, based on a hardness of 400 mg/L				1/8/1996	Based on site specific study. Toxics review document dated [revised] 2/1/07 identifies that a Water Effect Ratio (WER) of 2.9 was determined (in a 1993 study) for this facility in 1995 applicable to the 1995 and subsequent permits. Permit issue date in WQDelta is 01/08/96.		0055832	Hutchinson	Crow R, S Fk	07010205- South Fork Crow River	Upper Mississippi River	2012 monitoring/ 2014 assessment	Federal regulations at 40 CFR 122.44(d)(1) require that pollutants be evaluated for the potential to exceed water quality standards ("Reasonable Potential") using acceptable technical procedures, accounting for variability in the effluent. Copper was calculated with and without the Water Effect Ratio (WER) to demonstrate the difference in calculation of preliminary effluent limits. The WER of 2.9 was determined in a 1993 study by the discharger. The WER was evaluated at 400 mg/l total hardness both in effluent and receiving water, since both are over 400 mg/l. The WER is the ratio of copper toxicity in discharge site ambient water versus that found in clean lab	No	Point?
French River at SW003 (T.51N, R.12W, S.17, SW 1/4) station located between County Highway 61 and Lake Superior. Covers only the area near the mouth/ confluence with Lake Superior (located on 04010102-698).	Temperature	Std	7050.0222 subp.2	no material increase	-For the months from November through April - not to exceed 50 deg F as a monthly average. -For the months from May through October, not to exceed the monthly average temperature at SW001 (located 0.04 miles upstream from SW003 at T.51N, R.12W, S.17, SW 1/4).				7/8/2004	See documentation from 2004 effluent limit review. 50 DegF limit for SW003 station. A new temperature monitoring station (SW003) should be established downstream of the discharge and after complete mixing. A temperature not to exceed 50º F as a monthly average at SW003 during the period November through April would assure adequate temperatures exist for the spawning cycle (10º C or 50º F optimum, and range 1-13º C), and also be within acceptable boundaries for egg incubation (7-12º C optimum, and range 5-15º C) (Bovee, 1978 and U.S.EPA, 1977). This temperature (50º F) was also the compliance temperature established for the variance. If the temperature at SW001 should exceed 50º, then the monthly average temperature at SW003 should not exceed that temperature at SW001. Otherwise, the temperature at SW003 must not exceed temperatures at SW001 for the period May-October based on the monthly average temperature.	monitoring of receiving water	0004413	MDNR French River Hatchery (MN0004413, 5357 N Shore Dr)	French River	04010102 - Lake Superior	Lake Superior	2011 monitoring/ 2013 assessment	The site-specific standard for this station on the French River has two components. The first is a temperature standard that applies during the winter months (November through April). During that time, the temperature at monitoring station SW003 cannot exceed 50º F. The second component relates to the relationship of the temperature at monitoring station SW003 and the temperature at monitoring station SW001, which is upstream of SW003. During the warm weather months when the 50º F standard does not apply, the site-specific standard requires that the temperature at SW003 cannot exceed the temperature at SW001. For both standards, the temperature is based on a monthly average at each monitoring station. Detailed information about this site-specific limit can be located in the MPCA's documentation of the 2004 effluent limit review. In that documentation the MPCA required that a new temperature monitoring station (SW003) should be established downstream of the discharge and at a point after complete mixing has occurred. A temperature that did not exceed 50º F as a monthly average at SW003 during the period November through April would assure adequate temperatures to protect the fish spawning cycle (10º C or 50º F optimum, and range 1-13º C), and also be within acceptable boundaries for egg incubation (7-12º C optimum, and range 5-15º C). During the warm weather months (May through October) the temperature at SW003 must not exceed temperatures at SW001, based on the monthly average temperature. This component of the site-specific standard ensures that the narrative temperature requirement	No	Point?
Unnamed wetland adjacent to Lake Winona (21-0081) at ALASD outfall T.128, R38W, S.25 NW1/4	Copper	Std	7050.0222 subp.4	23.2 ug/L based on a hardness of 400 mg/L	Less than or equal to 111 ug/L, based on a hardness of 400 mg/L				4/19/1994	Based on site specific study. A toxics review document dated 9/8/05 identifies that a Water Effect Ratio (WER) of 4.8 was determined, and approved in 1993. Permit issue date in WQDelta is 04/19/94.		0040738	ALASD	Unnamed wetland to Lake Winona (21-0081)	07010108- Long Prairie River	Upper Mississippi River	2011 monitoring/ 2013 assessment	Federal regulations at 40 CFR 122.44(d)(1) require that pollutants be evaluated for the potential to exceed water quality standards ("Reasonable Potential") using acceptable technical procedures, accounting for variability in the effluent. The copper WQS includes a water effect ratio (WER=4.8) adjustment factor in the analysis. A WER is a site specific determination of toxicity to live organisms of a substance in site water versus standard laboratory water to determine a ratio applicable to the numeric WQS. The WER was approved in	No - need WID	unknow not app was eve waterbo
Red River of the North, from just downstream of 12th Ave N bridge in Fargo to the confluence with the Buffalo River (09020104-502 & 09020104-511)	Total ammonia nitrogen	Std	7050.0222 subp.3	0.04 mg/L unionized ammonia	Ammonia, total in mg N/L Chronic Standard (CStox) -Thirty Day Standard: The concentration of total ammonia nitrogen, in mg N/L, in any thirty day period cannot exceed the applicable CStox values (as derived below), more than once every three years on average; AND -Four Day Standard: The average concentration of the four days of highest ammonia, in mg N/L concentrations within the 30 days applied to the equation must not exceed 2.5 times the value of the applicable CStox. The CStox varies depending on the applicable months for each equation and also on pH and temperature. For March through September: $CStox = \left(\frac{0.0577}{1+10^{(7.688-pH)}} + \frac{2.487}{1+10^{(pH-7.688)}} \right) \times MIN(2.85, 1.45 \times 10^{0.028(25-T)})$ Where: pH means ambient water pH; and MIN means multiply by the minimum value of either 2.85 or 1.45 x $10^{(0.028(25-T))}$, where T means the ambient water Temperature in degrees Celsius (C). In this equation, 2.85 is used when T is less than or equal to 14º C. For October through February $CStox = \left(\frac{0.0577}{1+10^{(7.688-pH)}} + \frac{2.487}{1+10^{(pH-7.688)}} \right) \times MIN(4.63, 1.45 \times 10^{0.028(25-T)})$ Where: MIN means multiply by the minimum value of either 4.63 or 1.45 x				6/20/2000	See equations from EPA's 1999 criterion Example calc: (Total NH3 mg/L) 1.14 Jun-Sep (pH 8.1, Temp 24C) 2.60 Oct-Nov (pH 8.15, Temp 10C) 4.54 Dec-Feb (pH 7.9, Temp 0C) 2.21 Mar-May (pH 8.0, Temp 16C). Based on site specific study. 6/20/00 is date of permit reissuance. See 'Site-specific Ammonia Standard for the Red River of the North in the Fargo-Moorhead Area' MPCA March 24, 2000 [Table 5,7]. J-S pH 8.1, temp 24; O-N pH 8.15, temp 10; D-F pH 7.9, temp 0; M-M pH 8.0, temp 16. July 28, 1999 letter to David Pfeifer (USEPA) has site specific standards of 1.5 J-Sep, 2.25 Oct-Nov, 3.0 Dec-Feb, 1.5 Mar-May, and David Maschwitz email of Feb 18, 2000 with attached Ef-lims.doc file has these same numbers. March 24, 2000 memo is considered final.	108 kg/day effluent limit when summer flows in the Red River are less than or equal to 50 cfs. The permit also includes a Jun-Sep effluent limit of 19 mg/L.	0049069	Moorhead	Red River of the North	09020104 - Red River of the North Headwaters	Red River of the North	2015 monitoring/ 2017 assessment	The MPCA worked with the state of North Dakota to cooperatively develop this standard and the fact that the rule includes specific formulas for the calculation of the chronic standard reflects the MPCA's intent to maintain consistency with the standard as it exists in North Dakota's regulations. The site-specific standard for this stretch of the Red River of the North has two components, a thirty day standard and also a standard limiting the four highest days of ammonia concentration. The allowable levels of ammonia are calculated based on ambient water pH and water temperature.	*Yes*	No
Minnesota River from the outlet of the Blue Lake WWTF (RM 21) to mouth at Fort Snelling	Dissolved Oxygen	Std	SSC written into MN Rule 7050.0222 subp.4	Not less than 5 mg/L daily average year-round	Not less than 5 mg/L daily average year-round				2000?	Compliance is required 50 percent of the days at which the flow of the receiving water is equal to the 7Q10. Most of AUID 07020012-505		NA	NA		07020012 - Lower Minnesota River	Minnesota River	2014 monitoring/ 2016 assessment	The site-specific dissolved oxygen standard for this stretch of the Minnesota River was incorporated into the state rules at part 7050.0222, subp. 5 (for Class 2C waters) in a rulemaking finalized in 2000. In this rulemaking it is being moved without substantive change from where it was in subpart 5 to this new item. The content of this site-specific standard has not been changed, although the format has been slightly modified in this rulemaking to make it conform to the format of the rest of the site specific standards in this	*Yes*	Yes
Mississippi River from outlet of Metro WWTF in St Paul (RM 835) to Lock and Dam No. 2 at Hastings (RM 815)	Dissolved Oxygen	Std	SSC written into MN Rule 7050.0222 subp.4	Not less than 5 mg/L daily average form Apr 1-Nov 30, and not less than 4 at other times	Not less than 5 mg/L daily average form Apr 1-Nov 30, and not less than 4 at other times.				2000?	Compliance is required 50 percent of the days at which the flow of the receiving water is equal to the 7Q10. AUIDs: 07010206-502 and 07010206-504		NA	NA		07040001-Mississippi River - Lake Pepin	Upper Mississippi River	2018 monitoring/ 2020 assessment	The MPCA formed a Water Quality Standards Advisory Committee in 1996 and one of the topics discussed was the statewide dissolved oxygen standard. As a result of that discussion, the MPCA decided not to amend the statewide standard but to instead add language allowing a site-specific modification for this stretch of the Mississippi River. The site-specific water quality standard applies year round to this stretch of the river, but becomes less stringent when sensitive early life stages are absent from this specific portion of the Mississippi River. As a result, during the winter the standard drops from 5 mg/L as a warm months daily average to 4 mg/L as a cold months daily average. The site-specific dissolved oxygen standard for this stretch of the Mississippi River was incorporated into the state rules at part 7050.0222, subps. 4 (for Class 2B waters) and 5 (for Class 2C waters) in a rulemaking finalized in 2000. The content of this site-specific standard has not been changed, although the format has been slightly modified in this rulemaking to make it conform to the format of	*Yes*	No
Lake Byllesby (lower two-thirds of 19-0006-00, the combined transitional and near-dam segments)	Eutrophication	Std	7050.0222 subp.4 Eutrophication stds	Total Phosphorus (TP) 65 ug/L, Chlorophyll-a (Chl-a) 22 ug/L, Secchi not less than 0.9 m	TP less than or equal to 90 ug/L Chl-a less than or equal to 30 ug/L Secchi disk transparency greater than or equal to 0.8 m The standards under subitem 2 applies for flows that range from 180 cubic feet per second (for summer 122 day, one in ten year recurrence, 10th percentile flow) to 940 cubic feet per second (for 80th percentile flow) as measured at the combined transitional and near dam segments. The flow ranges correspond to a residence time of 8 to 10 days.		5/26/2009	5/5/2010	8/26/2011	TP < 90 ppb as summer mean as measured in the combined transitional (middle) and near-dam segments. Viable Chlorophyll a < 30 ppb as summer-mean as measured in these two segments. Secchi as a summer mean of 0.8 m or greater as measured in these two segments. Flow range: Applies over a range of flows from ~156 cfs (summer 122Q10, 90th percentile flow) up to ~1,000 cfs (~20th percentile), which corresponds to a residence time of about 8-10 days. Dates are based on the 5/26/2009 Draft and Public Notice. Additional attorney information was sent to EPA on 4/19/2011.		NA	NA	NA	07040002- Cannon River	Upper Mississippi River	2011 monitoring/ 2013 assessment	Because Lake Byllesby is a reservoir and drains more than one ecoregion, the lake eutrophication standards (part 7050.0222, subp 4) allow for establishment of site-specific criteria for the Byllesby Reservoir. The best available bathymetry data suggest that 48 percent of the Byllesby Reservoir is less than 10 feet deep, and a simple approximation of the littoral area is 66 percent. That value is very close to the criterion put forth in the shallow lake definition: maximum depth of 15 feet or 80 percent or more littoral. The other criterion in the shallow lake definition is that it is uncommon for shallow lakes to thermally stratify in the summer. In terms of surface area, the majority of the Byllesby Reservoir meets that criterion as well, with the exception of the single deep hole in the near-dam portion of the reservoir. Absent this portion, the remainder of the transitional and near-dam bays remains well-mixed throughout the summer, with at most temporary stratification during very warm and calm periods. Given this relative shallowness, the very large watershed, short water residence time, and predominance of agriculture throughout the watershed, the focus for site-specific criteria for Byllesby is on reducing the frequency and severity of nuisance algal blooms. This would be consistent with other shallow lakes in the Western Corn Belt Plains ecoregion.	No	Yes
Lake Hiawatha (27-0018-00)	Eutrophication	Std	7050.0222 subp.4 Eutrophication stds	TP 40 ug/L, Chl-a 14 ug/L, Secchi 1.4 m	TP < 50 ug/L, Chl-a 14 ug/L, Secchi 1.4 m		12/13/2012	5/29/2013	7/24/2013	Lake Hiawatha Site specific Eutrophication Criteria Justification. Public notice Feb 4 - Mar 6, 2013. Sent to EPA for preliminary review on Dec 13, 2012. Final Findings of Fact signed by commissioner sent 5/21/2013		NA	NA	NA	07010206-Mississippi River - Twin Cities	Upper Mississippi River	2010 monitoring/ 2012 assessment	Lake Hiawatha and its watershed are located within the Minnehaha Creek Watershed District jurisdiction in the Twin Cities Metropolitan area. MPCA based the site-specific standard on a detailed analysis of the lake's hydraulic residence time, the long-term response to phosphorus loading and other factors. The MPCA's review of in-lake water quality data indicates that due to the lake's relatively short residence time, the lake need only meet 50 µg/L in order to achieve chlorophyll-a and Secchi disk depth standards. Achieving chlorophyll-a and Secchi disk depth standards translates to producing minimal nuisance algal blooms and exhibiting desirable water clarity, which further translates to meeting desired beneficial aquatic recreational uses of the lake.	No	No
Lake Nokomis (27-0019-00)	Eutrophication	Std	7050.0222 subp.4 Eutrophication stds	TP 40 ug/L, Chl-a 14 ug/L, Secchi 1.4 m	TP < 50 ug/L, Chl-a < 20 ug/L, Secchi 1.4 m		1/3/2012	5/29/2013	8/29/2013	Lake Nokomis Site specific Eutrophication Criteria Justification. Public notice Sept 27-Oct 27, 2010. Sent to EPA for preliminary review on Jan 3, 2012 Final Findings of Fact signed by commissioner sent 5/21/2013		NA	NA	NA	07010206-Mississippi River - Twin Cities	Upper Mississippi River	2010 monitoring/ 2012 assessment	Lake Nokomis is located within the Minnehaha Creek Watershed District jurisdiction in the Twin Cities Metropolitan area. Lake Nokomis has a surface are of 200 acres. Sixty-six percent of the lake is less than 15 feet deep, and a large part is only minimally deeper (84% is 16 feet or less). The site-specific standard is based on a hybrid of the existing standard and the shallow lake standard, as the lake displays characteristics of both. The MPCA's review of in-lake water quality data indicates that achieving a TP concentration of 50 ug/L will result in a chlorophyll-a level of 20 ug/L. Achieving chlorophyll-a and Secchi disk depth standards translates to producing minimal nuisance algal blooms and exhibiting desirable water clarity, which further translates to meeting desired beneficial aquatic recreational uses of the lake.	No	No
Lake Winona (21-0081-00)	Eutrophication	Std	7050.0222 subp.4 Eutrophication stds	TP 60 ug/L, Chl-a 20 ug/L, Secchi 1.0 m	TP 75 ug/L, Chl-a 20 ug/L, Secchi 1.0 m		7/19/2011	4/16/2014	7/12/2014						07010108- Long Prairie River	Upper Mississippi River	2011 monitoring/ 2013 assessment	Federal regulations at 40 CFR 122.44(d)(1) require that pollutants be evaluated for the potential to exceed water quality standards ("Reasonable Potential") using acceptable technical procedures, accounting for variability in the effluent. The copper WQS includes a water effect ratio (WER=4.8) adjustment factor in the analysis. A WER is a site specific determination of toxicity to live organisms of a substance in site water versus standard laboratory water to determine a ratio applicable to the numeric WQS. The WER was approved in 1993. The site-specific copper standard for this unnamed wetland was approved by Region V USEPA on April 19, 1994.	No	
~~Mississippi River mainstem - Pool 2 through 4 (Lake Pepin) [Also decribed as: From Lock and Dam #1 to river mile 786; Pools 2, 3, 4 - St Paul to Lake Pepin] 64 mile reach includes 07010206-505, 07010206-504, 07010206-502, 07010206-501, and 07040001-531.~~	~~TSS~~	~~Std~~	Replaced by TSS SSSs in MN Rule on 8/14/14	~~25 NTU~~	~~Total Suspended Solid (TSS) summer average in mg/L, less than or equal to 32 For this subitem, the TSS standard can be exceed no more than 50% of the summers over a multi year data window. This standard applies June through September.~~				~~11/8/2010~~	~~Turbidity, submerged aquatic vegetation (narrative). Goal to achieve a 21% frequency of submersed aquatic vegetation.~~	~~TSS 32 mg/L summer average (June-September) in five or more years during a 10 year period~~	~~NA~~	~~NA~~	~~NA~~	~~07010206 - Mississippi River - Twin Cities & 07040001 - Mississippi River - Lake Pepin~~	~~Upper Mississippi River & Lower Mississippi River~~		~~This 64 mile stretch of the Mississippi River, from Pools 2 to the portion of Pool 4 above the headwaters of Lake Pepin, which corresponds to the area from Lock and Dam #1 to river mile 786, suffers from high turbidity, meaning the water is too cloudy to support aquatic life such as fish. The turbidity results from total suspended solids (TSS), which are tiny particles of soil and other matter that remain suspended in water. This cloudiness prevents sunlight from penetrating the water and growing rooted aquatic vegetation, reducing habitat for fish and wildlife. The goal of this site-specific standard is to decrease the level of TSS from its current summer average of 47 parts per million to 32 parts per million or less. This will decrease the concentration of sediment by roughly a third and achieve double the amount of desired submerged aquatic vegetation (SAV). The plants, in turn, will attract bird species such as canvasback ducks and tundra swans while~~	~~Yes~~	~~No~~
Red River mainstem - headwaters to border	TSS	Std	SSC written into MN Rule 7050.0222 subp.4		10 mg/L; may be exceeded for no more than ten percent of the time. This standard applies April 1 through September 30	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015								Large River	Aquatic Life Water Quality Standards Draft Technical Support Document for Total Suspended Solids (Turbidity)	Yes	No (spa
Lower Mississippi River mainstem - Pools 2 through 4	TSS		SSC written into MN Rule 7050.0222 subp.4		32 mg/L; may be exceeded for no more than 50 percent of the time. This standard applies June 1 through September 30	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015								Large River	Aquatic Life Water Quality Standards Draft Technical Support Document for Total Suspended Solids (Turbidity)	Yes	No (spa
Lower Mississippi River mainstem below Lake Pepin	TSS		SSC written into MN Rule 7050.0222 subp.4		30 mg/L; may be exceeded for no more than 50 percent of the time. This standard applies June 1 through September 30	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015								Large River	Aquatic Life Water Quality Standards Draft Technical Support Document for Total Suspended Solids (Turbidity)	Yes	No (spa
Mississippi River Navigational Pool 1 (river miles 854.1 to 847.7 reach from St. Anthony to Ford Dam in St. Paul)	Eutrophication	Std	SSC written into MN Rule 7050.0222 subp.4	Central River Nutrient Region Eutrophication Standards	TP less than or equal to 100 ug/L Chl-a less than or equal to 35 ug/L	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015	Contested							2014 assessment	Mississippi River Pools 1 through 8 - Developing River, Pool and Lake Pepin Eutrophication Criteria	Yes	No (attr
Mississippi River Navigational Pool 2 (river miles 847.7 to 815.2 reach from Ford Dam to Hastings Dam)	Eutrophication	Std	SSC written into MN Rule 7050.0222 subp.4	Central River Nutrient Region Eutrophication Standards	TP less than or equal to 125 ug/L Chl-a less than or equal to 35 ug/L	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015	Contested							2014 assessment	Mississippi River Pools 1 through 8 - Developing River, Pool and Lake Pepin Eutrophication Criteria	Yes	No (attr
Mississippi River Navigational Pool 3 (river miles 815.2 to 796.9 reach from Hastings Dam to Red Wing Dam)	Eutrophication	Std	SSC written into MN Rule 7050.0222 subp.4	South River Nutrient Region Eutrophication Standards	TP less than or equal to 100 ug/L Chl-a less than or equal to 35 ug/L	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015	Contested							2014 assessment	Mississippi River Pools 1 through 8 - Developing River, Pool and Lake Pepin Eutrophication Criteria	Yes	No (attr
Mississippi River Navigational Pool 4 (river miles 796.9 to 752.8 reach from Red Wing Dam to Alma Dam).	Eutrophication	Std	SSC written into MN Rule 7050.0222 subp.4	South River Nutrient Region Eutrophication Standards	Lake Pepin occupies majority of Pool 4 and Lake Pepin site-specific standards are used for this pool. TP less than or equal to 100 ug/L Chl-a less than or equal to 28 ug/L	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015	Contested							2014 assessment	Mississippi River Pools 1 through 8 - Developing River, Pool and Lake Pepin Eutrophication Criteria	Yes	No (attr
Lake Pepin (25-0001-00)	Eutrophication	Std	SSC written into MN Rule 7050.0222 subp.4		TP less than or equal to 100 ug/L Chl-a less than or equal to 28 ug/L	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015	Contested					07040001-Mississippi River - Lake Pepin	Upper Mississippi River	2018 monitoring/ 2020 assessment	The site-specific standard for Lake Pepin was developed as a part of the nutrient impairment study (TMDL) that is currently underway. This site-specific standard is based on similar scientific rigor as the river eutrophication standards being proposed in this rulemaking for the streams and rivers in the rest of Minnesota. In the case of Lake Pepin, the Pepin site-specific standards reflect years of work, application of model results, feedback from the Lake Pepin TMDL Science Advisory Panel, and consideration of the State of Wisconsin, which has promulgated eutrophication standards. The site-specific standard being proposed for Lake Pepin is different than the other site-specific standards being addressed in this rulemaking because it has not already been approved and applied. It is being newly proposed through this rulemaking and the need for and reasonableness of it is extensively discussed in section 4. F of Book 2. This standard is being proposed as part of the eutrophication standards proposed for Minn. R. part 7050.0220 and 7050.0222. As such, the proposed Lake Pepin eutrophication site specific water quality standard is open for comments and discussion similar to other portions of this rulemaking.	Yes	No

Mississippi River Navigational Pools 5 to 8 (river miles 752.8 to 679.1 Alma Dam to Genoa Dam)	Eutrophication	Std	SSC written into MN Rule 7050.0222 subp.4	South River Nutrient Region Eutrophication Standards	TP less than or equal to 100 ug/L Chla less than or equal to 35 ug/L	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015	Contested	2014 assessment	Mississippi River Pools 1 through 8 - Developing River, Pool and Lake Peoln Eutrophication Criteria	Yes	No (attn
Crow Wing River from confluence of Long Prairie River to the mouth of the Crow Wing River at the Mississippi River	Eutrophication	Std	SSC written into MN Rule 7050.0222 subp.4	Central River Nutrient Region Eutrophication Standards	Phosphorus, total µg/L less than or equal to 75 Chlorophyll-a (seston) µg/L less than or equal to 13 Diel dissolved oxygen flux mg/L less than or equal to 3.5	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015	Contested	2014 assessment	Mississippi River Pools 1 through 8 - Developing River, Pool and Lake Peoln Eutrophication Criteria	Yes	No (attn
Crow River from the confluence of the North Fork of the Crow River and South Fork of the Crow River to the mouth of the Crow River at the Mississippi River	Eutrophication	Std	SSC written into MN Rule 7050.0222 subp.4	Central River Nutrient Region Eutrophication Standards	Phosphorus, total µg/L less than or equal to 125 Chlorophyll-a (seston) µg/L less than or equal to 27 Diel dissolved oxygen flux mg/L less than or equal to 4.0	Nov. 2013 - Feb. 2014	~2008	8/26/2014	1/23/2015	Contested	2014 assessment	Mississippi River Pools 1 through 8 - Developing River, Pool and Lake Peoln Eutrophication Criteria	Yes	No (attn

Water affected	Parameter	Type (std or criteria)	Rule
Associated with discharge points from Cliffs Eerie-Dunka Mining; SD005-Biliken Cr to Unnamed Cr / SD006-Flamingo Cr / SD007, SD008 & SD009-Unnamed Creek	Cobalt		7050.0222 subp. 3
Rainy River, assoc with Outfall from Boise White Paper LLC	Dioxin		

**Incomplete...*

Water Quality Std (in rule)	Site Specific Standard	Preliminary proposal sent to EPA	Final proposal sent to EPA	Date adopted/ EPA approved
	1.0 pg/g			

Comments
Based on site specific study
Based on fish tissue data; to protect fish in the Rainy River; fish consumption advisories in the 1990s

Requirements	Permit # (if applicable)	Facility name	Receiving water	HUC8 - Major Watershed	Basin	IWM Year
	0042579	LTV / Dunka				
sludge monitoring	0001643	Boise Cascade				

Justification	In db	Split potential
		Unknown geographic extent; possible that no WID exists
		Unknown geographic extent but probably pretty close to AUID 09030004-502

Water affected	Parameter	Type (std or criteria)	Rule
~~11~~	~~Eutrophication~~	~~Standard~~	~~7050.0222 subp.4 Eutrophication stds~~
Spring Lake (70-0054-00)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Sauk River Chain of Lakes			
Flowage Lakes			
Zumwalde (73-0089-00)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Great Northern (73-0083-00)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Knaus (73-0086-00)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Krays (73-0087-00)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Horseshoe North (73-0157-00-206)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Cedar Island Koetter (73-0133-03)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Non-Flowage Lakes			
Cedar Island Main (73-0133-01)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Horseshoe South (73-0157-00-204)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Horseshoe West (73-0157-00-210)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Bolfing (73-0088-00)	Eutrophication	Standard	7050.0222 subp.4 Eutrophication stds
Minnesota River at Seneca Facility	Selenium		7050.0222 subp.4
Downstream of Keetac Ore Facility			

<u>Water Quality Std (in rule)</u>	Proposed Site Specific Standard	Requested by	Responsible
~~TP 60 ug/L, Chl-a 20 ug/L, Secchi 1.0 m~~	~~**TP 100 ug/L**, Chl-a 20 ug/L, Secchi 1.0 m~~	~~RCWD~~	~~Chris Zadak~~
40 ug/L TP, Chl-a 14 ug/L, Secchi 1.4 m	60 ug/L TP, Chl-a 20 ug/L, Secchi 1.4 m	Prior Lake Spring Lake Watershed District	Chris Zadak
		MPCA	Greg VanEeckhout
60 ug/L TP, Chl-a 20 ug/L, Secchi 1.0 m	**90 ug/L TP, Chl-a 45 ug/L, Secchi 0.8 m**		
60 ug/L TP, Chl-a 20 ug/L, Secchi 1.0 m	**90 ug/L TP, Chl-a 45 ug/L, Secchi 0.8 m**		
60 ug/L TP, Chl-a 20 ug/L, Secchi 1.0 m	**90 ug/L TP, Chl-a 45 ug/L, Secchi 0.8 m**		
60 ug/L TP, Chl-a 20 ug/L, Secchi 1.0 m	**90 ug/L TP, Chl-a 45 ug/L, Secchi 0.8 m**		
60 ug/L TP, Chl-a 20 ug/L, Secchi 1.0 m	**90 ug/L TP, Chl-a 45 ug/L, Secchi 0.8 m**		
60 ug/L TP, Chl-a 20 ug/L, Secchi 1.0 m	**90 ug/L TP, Chl-a 45 ug/L, Secchi 0.8 m**		
40 ug/L TP, Chl-a 14 ug/L, Secchi 1.4 m	**55 ug/L TP, Chl-a 32 ug/L,** Secchi 1.4 m		
40 ug/L TP, Chl-a 14 ug/L, Secchi 1.4 m	**55 ug/L TP, Chl-a 32 ug/L,** Secchi 1.4 m		
40 ug/L TP, Chl-a 14 ug/L, Secchi 1.4 m	**55 ug/L TP, Chl-a 32 ug/L,** Secchi 1.4 m		
40 ug/L TP, Chl-a 14 ug/L, Secchi 1.4 m	**55 ug/L TP, Chl-a 32 ug/L,** Secchi 1.4 m		
Chronic: 5 ug/L, Maximum: 20 ug/L, FAV: 40 ug/L	*~42.9 ug/L Chronic*	Gopher Resources LLC	
		US Steel	

Status	Preliminary proposal sent to EPA	Final proposal sent to EPA	Date adopted / EPA approved
Long Lake split into North (-01) and South (-02); correction appeared on 2012 303(d) List			
12/28/15: Sent to EPA R5 for approval			
6/1 - 12/31/15: No movement	6/26/2012		

10/1-12/31/15: Back-and-forth communication regarding sampling plans. Mark Jankowski left the agency and another scientist has not bee assigned.			
12/11/2014: Request for SSS received. 4/1/2015: On hold since proposal for new sulfate standard has been released.			

Comments	Requirements	Permit # (if applicable)	Facility name
2014-2015: On hold for many months due to turnover at watershed district. 4/6 - 5/5/2015: Public notice. Comments received. One request to bring the SSS in front of the MPCA Citizen's Board (now disbanded). 6/1 - 10/1/2015: Responding to comments. Working on Finding of Fact.			
Flowage and Non-flowage lakes submitted together in single package; SSS TMDL going to EPA for draft review early May; public comment period July 28-Aug. 17, 2014; re-noticed; second public comment period Sept. 8 - Oct. 8; 10/20: beginning response to comment and FOF; 1/5/15: no movement			

May 2015: MPCA and EPA Reviewed sampling plan and brought up issues. No response from Wenck (the contractors) or Gopher. 6/1 - 10/1/2015: Sampling took place. EPA draft selenium critieria released. Discussions with EPA on how to proceed. Gopher/Wenck requested comments on sampling plan and their proposed criteria; MPCA working on response		MN0030007	Seneca WWTP (MCES)
		MN0031879 (Mining and Plant Areas) and MN0055948 (Tailings Basin Area)	Keetac

Receiving water	HUC8 - Major Watershed	Basin	IWM Year	Justification	In db	Split potential
	~~Mississippi River – Twin Cities~~	~~Upper Mississippi River~~				
	07020012- Lower Minnesota River	Minnesota River	2014			No
	07010202- Sauk River	Upper Mississippi River	2008			
						no
						no
						no
						no
						yes
						no
						no
						yes
						yes
						no
Minnesota River, RM 22 to Mississippi R (07020012-505)	07020012 - Lower Minnesota River	Minnesota River	2014			?
	07010103 - Upper Mississippi - Grand Rapids	Upper Mississippi River	2015			

Hay Lake (31-0037-00)	Wild rice sulfate	Standard	7050.0224 subp. 2
Hay Creek - confluence with the O'Brien Diversion Channel to Swan Lake (lower half of 07010103-545)	Wild rice sulfate	Standard	7050.0224 subp. 2
Swan Lake - Southwest Bay (31-0067-01)	Wild rice sulfate	Standard	7050.0224 subp. 2
Swan River - Swan Lake to confluence with Snowball Creek (very small upper-most portion of 07010103-506)	Wild rice sulfate	Standard	7050.0224 subp. 2
Lake Winona (21-0081-00)	Chloride		7050.0222 subp.3
Northeast and northwest of Minntac	All Class 3C and 4A WQS parameters		7050.0223 and 7050.0224
Timber Creek (09030005-630)	See table ->		
Dark River (from the SD001 discharge point (NPDES/SDS permit MN0057207) to the headwaters of the Dark River trout stream reach (09030005-629, 09030005-592, 09030005-591, 09030005-589))	See table ->		
Dark Lake (69-0790-00)	See table ->		

Use Classification	
Class 3C (Industrial Consumption)	

10 mg/L, applicable to water used for production of wild rice during periods when the rice may be susceptible to damage by high sulfate levels.	No criteria proposed at this time		
10 mg/L, applicable to water used for production of wild rice during periods when the rice may be susceptible to damage by high sulfate levels.	No criteria proposed at this time		
10 mg/L, applicable to water used for production of wild rice during periods when the rice may be susceptible to damage by high sulfate levels.	No criteria proposed at this time		
10 mg/L, applicable to water used for production of wild rice during periods when the rice may be susceptible to damage by high sulfate levels.	No criteria proposed at this time		
Chronic: 230 mg/L, Maximum: 860 mg/L, FAV: 1720 ug/L	*~500 mg/L Chronic, ~700 mg/L Maxiumum*	Alexandria Lakes Sanitary District	
See 7050.0223 and 7050.0224	Narrative to replace 3C WQS: The water quality and quantity shall be adequate such as to permit their use for industrial cooling and materials transport. The level of water quality in the water body should be high enough for industrial use so that the water can be used without a high degree of treatment being necessary to avoid severe fouling, corrosion, scaling, or other unsatisfactory conditions. Waters that can support Class 2B uses will be judged as meeting this narrative standard. ...4A below.	US Steel	

Parameter	Water Quality Standard (WQS)	Proposed Site-specific Standard (SITE-SPECIFIC STANDARD)
Chlorides	250 mg/L	Narrative standard—see above.
Hardness	500 mg/L as Ca + Mg as $CaCO_3$	
pH	6.0 – 9.0	

8/28/2015: received request to use Iowa's updated chloride standard			
Request received 10/30/15. Response sent 12/2. On hold because development of the revision of Class 3 and 4 standards are on the 2014-2016 list of MPCA WQS projects.			

Unsure if request includes the main bay of Swan Lake. Unsure if request includes all of what we call the Southwest Bay or only the southern portion of the bay.			
2010: Winona added to MN's TMDL List		MN0040738	ALASD
		MN0057207	Minntac

Hay Lake					no
Hay Creek					yes
Swan Lake - Southwest Bay					no
Swan River - Swan Lake to confluence with Snowball Creek					yes
21-0081-00	07010108- Long Prairie River	Upper Mississippi River	2011		no
		Rainy River			
Timber Creek	09030005 - Little Fork		2008		no
Dark River	09030005 - Little Fork		2008		no
Dark Lake	09030005 - Little Fork		2008		no

Sand River (from the headwaters just east of the Minntac tailings basin to its confluence with the Pike River (09030002-501))	See table ->		Class 4A (Irrigation)
Admiral Lake (69-1392-00)	See table ->		
Sandy Lake and Little Sandy Lake ((Twin Lakes) (69-0729-00, 69-0730-00))	See table ->		

Bicarbonate	5 meq/L	Adjusted Sodium Adsorption Ratio (Adj. RNa) = 10	
Sodium	60% of Total Cations as meq/L		
Specific Conductance	1,000 µmhos/cm	2,000 µmhos/cm	
Total Dissolved Salts	700 mg/L	Remove	

Sand River	09030002 - Vermillion		2015		no
Admiral Lake	09030002 - Vermillion		2015		no
Sandy and Little Sandy Lake	09030002 - Vermillion		2015		no

OTHER THAN FINAL SUBMISSIONS - those in

Rows shaded in pale blue are completed (i.e., end date pres

Submission No. + Links	State-Tribe / Title	Type Status	Date Received	Begin Date
MN2012-431 *Linked to:*	**Minnesota** / Zumwalde Lake Nutrient SSC	**Under Development** WQS Submission *Under Review*	6/26/2012	N/A
MN2012-430 *Linked to:*	**Minnesota** / Cedar Island Main Lake Nutrient SSC	**Under Development** WQS Submission *Under Review*	6/26/2012	N/A
MN2012-432 *Linked to:*	**Minnesota** / Great Northern Lake Nutrient SSC	**Under Development** WQS Submission *Under Review*	6/26/2012	N/A
MN2012-433 *Linked to:*	**Minnesota** / Knaus Lake Nutrient SSC	**Under Development** WQS Submission *Under Review*	6/26/2012	N/A
MN2012-434 *Linked to:*	**Minnesota** / Krays Lake Nutrient SSC	**Under Development** WQS Submission *Under Review*	6/26/2012	N/A
MN2012-435 *Linked to:*	**Minnesota** / Horseshoe Lake Nutrient SSC	**Under Development** WQS Submission *Under Review*	6/26/2012	N/A
MN2012-429 *Linked to:*	**Minnesota** / Cedar Island (Koetter Lake) Nutrient SSC	**Under Development** WQS Submission *Under Review*	6/26/2012	N/A
MN2011-413 *Linked to:*	**Minnesota** / Dunka Mine Variance Request	**Under Development** WQS Submission *Under Review*	11/1/2011	N/A
MN2011-408 *Linked to:*	**Minnesota** / Lake Winona Nutrient Phosphorus Criterion	**Draft** WQS Submission *Under Review*	7/19/2011	N/A
MN2010-376 *Linked to:*	**Minnesota** / Peltier Lake Nutrient Site-Specific Criteria	**Under Development** WQS Submission *Under Review*	10/22/2010	N/A
MN2010-346 *Linked to:*	**Minnesota** / Site-Specific Nutrient Criteria for Minnehaha Creek Watershed Lakes	**Under Development** WQS Submission *Expected - Not Yet Received*	1/29/2010	N/A

ent)

End Date	NOTE
N/A	*Horseshoe*
N/A	*Horseshoe*
N/A	*Horseshoe*
N/A	*Horseshoe*
N/A	*Horseshoe*
N/A	*Horseshoe*
N/A	*Horseshoe*
N/A	*Variance*
N/A	*4/16/2014*
N/A	*?-Chris Z*
N/A	*?-Chris Z*

Water affected	Limit/WQ Standard	Type (std or criteria)	Rule	Water Quality Std (in rule)	Proposed Site Specific Std	Requested by	Responsible	Status	Preliminary proposal sent to EPA	Final proposal sent to EPA
Dunka Mine	Variance								11/1/2011	

Date adopted / EPA approved	Comments	Additional Requirements	Major Watershed	Basin	Permit # (if applicable)	Facility name	Receiving water